Claims

1. A pharmaceuticals characterized by general formula (I)

Z-L-V (I)

wherein

V denotes a peptide with a binding sequence -X^1-X^2-Val-Tyr-Ile-His-Pro-X^8-X^9-X^{10},

L denotes bond or a linker,

Z denotes a group that optionally can carry an imaging moiety M,

X^1 denotes-NY_1-$(CH_2)_m$-CO- where m is an integer from 1 to 10 and Y_1 is H or an alkyl or aryl containing substituent.

X^2 denotes Arg, N-alkylated Arg, a Arg mimetics Phe[4-guanidino] or Gly-4-piperidyl[N-amidino],

X^8 denotes Gly, Phe, Phg, Hph, Bip, Ala, Tyr, His, Trp or Nal,

X^9 and X^{10} denote, independent of each other, Pro, Arg, His, Ala, Phe, Glu, Leu, Val, Ile, Met, Trp, Asp or Lys and where X^8, X^9 and X^{10} together constitute an ACE cleavage site

and wherein the residues Val and Ile at position 3 and 5 respectively may optionally be replaced with amino acids capable of forming a bridging unit wherein the bridge containing a -CH_2-CH_2-, -S-CH_2-, -S-CH_2-S-, lactam or —S-S- unit,

Z forms a bond with the amino acid X^1 optionally through the linker L, and

M where present denotes an imageable moiety capable of detection either directly or indirectly in a diagnostic imaging procedure.

2. A pharmaceutical according to claim 1 wherein the amino acid of X^1 , X^2, X^8, X^9, X^{10} are independently selected from

X^1 denoting Gly

X^2 denoting Arg or N-Methyl-Arg

X^8 denoting Phe

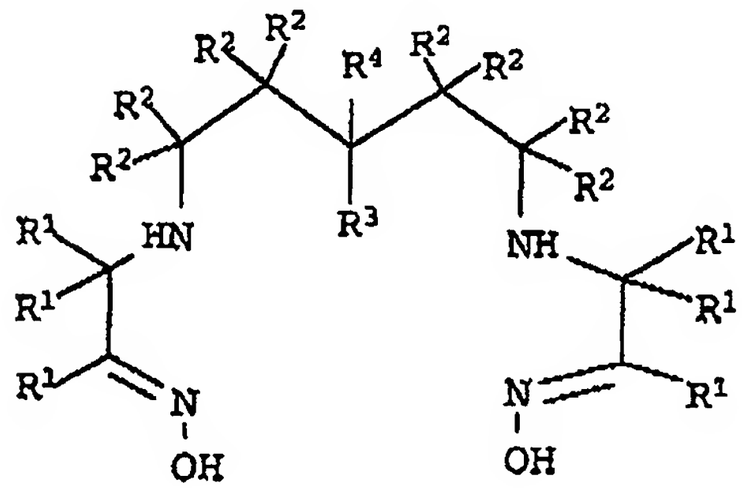
X^9 denoting Pro, Arg, His, Ala, Phe, Glu, Leu, Val, Ile, Met, Trp, Asp or Lys and

X^{10} denoting Pro, Arg, His, Ala, Phe, Glu, Leu, Val, Ile, Met, Trp, Asp or Lys .

3. A pharmaceutical according to the preceding claims further comprising one or more biomodifier groups are attached to any positions of the V and L groups of formula (I)

4. A pharmaceutical according to the preceding claims wherein Z denotes a chelating agent.

5. A pharmaceutical according to claim 4 wherein Z denotes the chelating agent of formula (VII)



(VII)

wherein:
each R^1, R^2, R^3 and R^4 is independently H or C_{1-10} alkyl, C_{3-10} alkylaryl, C_{2-10} alkoxyalkyl, C_{1-10} hydroxyalkyl, C_{1-10} alkylamine, C_{1-10} fluoroalkyl, or 2 or more R groups, together with the atoms to which they are attached form a carbocyclic, heterocyclic, saturated or unsaturated ring.

6. A pharmaceutical according to any of the preceding claims wherein M represents an imageable moiety for the use in diagnosis particularly in *in vivo* diagnosis comprising a moiety which emit or cause to emit detectable radiation, a moiety which affect local electromagnetic fields, moieties which absorb or scatter radiation energy, heavy metals and compounds thereof and moieties which generate a detectable substance.

7. A pharmaceutical according to claim 6 wherein M represents a gamma emitting moiety for Radio or SPECT imaging comprising ^{67}Ga, ^{111}In, ^{123}I, ^{125}I, ^{131}I, ^{81m}Kr, ^{99}Mo, ^{99m}Tc, ^{201}Tl and ^{133}Xe.

8. A pharmaceutical according to claim 6 wherein M represents a radio emitter with positron emitting properties for PET imaging comprising ^{11}C, ^{18}F, ^{68}Ga, ^{13}N, ^{15}O and ^{82}Rb.

9. A pharmaceuticals according to claims 1 to 5 characterized by general formula (I)

Z-L-V (I)

wherein

V denotes a peptide with a binding sequence -X^1-X^2-Val-Tyr-Ile-His-Pro-X^8-X^9-X^{10},

wherein the amino acid of X^1 , X^2, X^8, X^9, X^{10} are independently selected from

X^1 denoting Gly

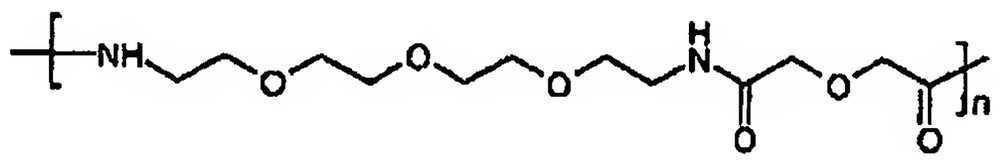
X^2 denoting Arg or N-Methyl-Arg

X^8 denoting Phe

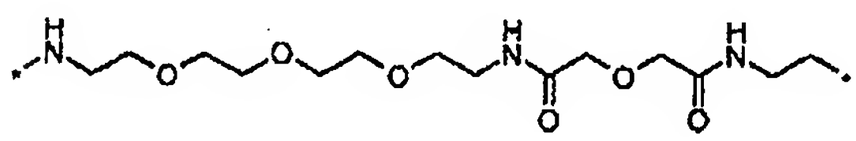
X^9 denoting Pro, Arg, His, Ala, Phe, Glu, Leu, Val, Ile, Met, Trp, Asp or Lys and

X^{10} denoting Pro, Arg, His, Ala, Phe, Glu, Leu, Val, Ile, Met, Trp, Asp or Lys .

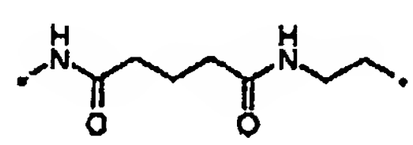
L denotes a bond or a linker selected from compounds of formula NH-(CH2)m- optionally combined with –CO-(CH2)m-CO- where m denotes a positive integer from 1 to 10, one or more units of compounds of formula (IV) wherein n is an integer from 1 to 10, compounds of formula (X) or (VI)



Formula (IV)

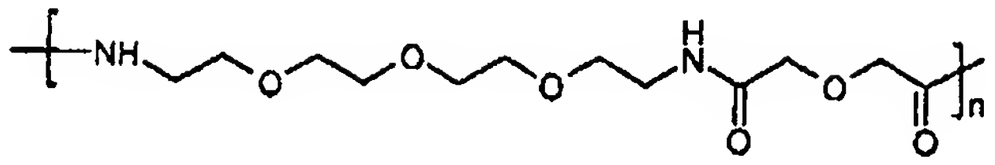


Formula (X)



Formula (VI)

Z denotes a chelating agent of formula (VII) that optionally can carry an imaging moiety M, and one or more biomodifier groups selected from monodisperse PEG building block comprising 1 to 10 units of said building block or the compound of formula IV,



Formula (IV)

wherein n equals an integer from 1 to 10 are attached to any positions of the V and L groups of formula (I).

10. Pharmaceutical formulation comprising a pharmaceutical of formula (I) of claim 1 together with one or more pharmaceutical acceptable additives and/or excipients.

11. A kit for the preparation of a radiopharmaceutical composition of formula (I) comprising a peptide-chelate conjugate and a reducing agent.